

Application No.: 09/856,043Docket No.: 713-484**AMENDMENTS TO THE CLAIMS:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:**1. *(cancelled)***

2. **(currently amended)** An explosively operated tool, comprising
a housing;
a barrel assembly mounted within the housing;

a piston within the barrel assembly and actuated upon firing of the tool to drive a fastener in the forward end of the barrel assembly into a substrate, wherein the barrel assembly is mounted for axial movement within the housing and co-operates with a mass mounted for rearwards movement relative to the housing in opposition to a biasing force to absorb recoil on firing of the tool; and

a resetting mechanism for resetting the piston into a rear part of the barrel assembly after firing, said resetting mechanism being powered in response to displacement of said mass on recoil;

wherein the resetting mechanism comprises
engagement means for engaging the piston in a forward position in the barrel; and
displacement means for displacing the engagement means rearwardly relative to said housing to thrust the piston rearwardly relative to said housing, said displacement means comprising an energy source in which energy is stored as a result of displacement of the recoil mass upon recoil.

3. **(currently amended)** A tool according to claim 2, wherein the energy source comprises a spring in which potential energy is stored in response to displacement of the recoil

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mass, said potential energy suddenly being released to cause the engagement means and the piston to be propelled rearwardly relative to said housing.

4. (original) A tool according to claim 3, wherein the recoil mass is propelled rearwardly against a strong resilient bias to absorb the recoil force and is then propelled forwardly by that bias, the spring associated with the resetting mechanism being charged with potential energy in response to the forwards movement of the recoil mass.

5. (previously presented) A tool according to claim 2, wherein the engagement means comprise gripping means for gripping the piston at a forward end portion of said piston when the piston is in the forward position within the barrel assembly.

6. (previously presented) A tool according to claim 5, wherein the gripping means are interposed between front and rear barrel sections of the barrel assembly.

7. (previously amended) A tool according to claim 5, wherein the gripping means comprise balls arranged around the axis of the piston to engage a peripheral surface of the piston, said balls co-operating with an inclined surface to force the balls into gripping engagement with the piston upon rearwards movement of the gripping means relative to the piston.

8-13. (cancelled)

14. (currently amended) An explosively operated tool for driving a fastener into a substrate, said tool comprising:

a housing;

a barrel mounted to the housing for axial movement relative to the housing between a first forward position and a first rearward position;

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a piston axially displaceable within the barrel between a second forward position and a second rearward position, said piston being explosively driven forwardly from the second rearward position to the second forward position, causing a recoil movement of said barrel from the first forward position to the first rearward position; and

a resetting mechanism connecting the barrel and the piston for automatically and physically moving resetting the piston rearwardly relative to said housing from the second forward position to the second rearward position in response to a return movement of the barrel from the first rearward position to the first forward position.

15. *(cancelled)*

16. (previously presented) A tool according to claim 14, wherein said resetting mechanism comprises:

a catching element releasably engaging the piston; and
a spring attached to the barrel and the catching element, respectively;

wherein said spring is configured so that potential energy is stored in said spring in response to the recoil movement of said barrel and is not released until said barrel has passed an intermediate location between the first rearward position and the first forward position on the return movement.

17. (previously presented) A tool according to claim 16, wherein said barrel has a latch that engages the catching element and rigidly connects the barrel with the catching element when said barrel is between the first rearward position and the intermediate location on the return movement, said latch is disengaged from said catching element when said barrel is between the intermediate location and the first forward position.

18. (previously presented) A tool according to claim 16, wherein the catching element is configured to engage and rearwardly drive the piston when the catching element is driven

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rearwardly when the energy is released by the spring.

19-32. (cancelled)

33. (previously presented) The tool of claim 2, wherein said engagement means are moveable relative to the forward end of said barrel assembly.

34. (previously presented) The tool of claim 33, further comprising a spring other than said energy source, wherein said engagement means are connected to said forward end of said barrel assembly by said spring.

35. (previously presented) The tool of claim 2, further comprising braking means for catching and stopping the piston on rebound after said piston has been reset into the rear part of the barrel assembly by said resetting mechanism, said braking means being different from said engagement means.

36. (previously presented) The tool of claim 14, further comprising braking elements for catching and stopping the piston on rebound after said piston has been reset into the second rearward position by said resetting mechanism, wherein said braking elements are not part of said resetting mechanism and operate independently of said resetting mechanism.

37. (currently amended) The tool of claim 16, wherein said barrel comprises a front portion retractably projecting from a front end of said housing and a rear portion completely received and moveable within said housing, said front portion being connected to said catching element which is connected to an end of said spring which has an opposite end connected to said rear portion.

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38. (currently amended) An explosively operated tool for driving a fastener into a substrate, said tool comprising:

a housing;

a barrel mounted to the housing for axial movement relative to the housing between a first forward position and a first rearward position;

a piston axially displaceable within the barrel between a second forward position and a second rearward position, said piston being explosively driven forwardly from the second rearward position to the second forward position, causing a recoil movement of said barrel from the first forward position to the first rearward position; and

a resetting mechanism connecting the barrel and the piston for automatically resetting the piston from the second forward position to the second rearward position in response to a return movement of the barrel from the first rearward position to the first forward position;

wherein said resetting mechanism comprises a catching element releasably engaging the piston, and a spring attached to the barrel and the catching element, respectively;

wherein said spring is configured so that potential energy is stored in said spring in response to the recoil movement of said barrel and is not released until said barrel has passed an intermediate location between the first rearward position and the first forward position on the return movement;

wherein said barrel comprises a front portion retractably projecting from a front end of said housing and a rear portion completely received and moveable within said housing, said front portion being connected to said catching element which is connected to an end of said spring which has an opposite end connected to said rear portion; and

wherein said tool further comprises The tool of claim 37, further comprising another spring disposed between and connecting said front portion and said catching element.